

7. (Currently amended) The proppant of claim 1, ~~2, 3, 4, 5 or 6~~ in which the particulate sol-gel ceramic has an apparent specific gravity of 1.4 to 1.9 g/cm³.

8. (Currently amended) The proppant of ~~any of claims 1, 2, 3, 4, 5, 6 or 7~~ claim 1 used in fracturing a well.

9. (Original) A method of manufacturing a proppant, the method comprising the steps of:

forming a sol-gel composition from ceramic precursors; and

shaping and curing the sol-gel composition to form particulate sol-gel ceramic having a roundness and compressive strength suitable for use as a proppant.

10. (Original) The method of claim 9 in which the sol-gel composition is a blend of aluminosilicates and aqueous solutions of alkali metal silicates.

11. (Original) The method of claim 10 in which the aluminosilicates comprise geopolymers.

12. (Original) The method of claim 9 in which the sol-gel composition comprises a blend of phosphates and metal oxides.

13. (Currently amended) The method of ~~any one of claims 9, 10, 11 or 12~~ claim 9 in which blending, forming and curing is carried out at temperatures below 200°C.

14. (Original) The method of claim 13 in which blending, forming and curing is carried out at temperatures below 80°C.

15. (Currently amended) The method of ~~any one of claims 9, 10, 11, 12, 13 or 14~~ claim 9 in which shaping and curing the sol-gel ceramic comprises:

forming spheroidal pellets;

smoothing the spheroidal pellets; and

curing the spheroidal pellets.

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16. (Original) The method of claim 15 in which curing the spheroidal pellets comprises curing the spheroidal pellets in a rotary kiln.

17. (Original) The method of claim 16 in which curing takes place at a temperature greater than 30°C.

18. (Currently amended) The method of ~~any one of claims 9, 10, 11, 12, 13, 14, 15, 16 or 17~~ claim 9 further comprising coating the particulate sol-gel ceramic.

19. (Original) The method of claim 18 in which the particulate sol-gel ceramic is coated with a film of one or more epoxy, furan or phenolic resins.

20. (Currently amended) The method of ~~any one of claims 9-19~~ claim 9 in which the particulate sol-gel ceramic has an apparent specific gravity of 1.4 to 1.9 g/cm³.

21. (Currently amended) Proppant made by the method of ~~any one of claims 9-20~~ claim 9.

22. (Original) Proppant of claim 21, further comprising fillers.

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